AMENDMENTS TO THE CLAIMS

Claims 1-12, 14-16 and 20 are being amended, and new claims 21-23 are being added.
Support for such amendments and new claims are provided in the application as originally filed,
thus no new matter has been added. All pending claims are reproduced below, including those that
remain unchanged.

1.   (Currently Amended) A storage medium including software system applications for
providing access to web services, comprising:

a container driver that accepts an invoke request requests for a web service from a client
for web services[[,]];

an interceptor that

receives initial message context information for the invoke request for the web
service from said container driver, the initial message context including a plurality of
components each of which includes corresponding content, and

modifies the content of one or more of the components of the initial message
context to produce modified message context to be used with web services for the web service,
the modified message context including the same plurality of components as the initial message
context but with the content of one or more components differing from the initial message
context; and,

an invocation handler that receives the modified message context information from said
container driver, passes parameters from the modified message context to the target of the
request, processes values returned from the target, and passes the values to the container driver,
such that the container driver can formulate a response to the invoke request.

2.   (Currently Amended) The system storage medium of claim 1 wherein the client utilizes
JAX-RPC to invoke the web services.

3.   (Currently Amended) The ~~system~~ storage medium of claim 1 wherein said container driver is adapted to perform any data binding and unbinding required to process the invoke request.

4.   (Currently Amended) The ~~system~~ storage medium of claim 1, further comprising a protocol adapter that intercepts web service invoke requests and passes the web service invoke requests to said container driver.

5.   (Currently Amended) The ~~system~~ storage medium of claim 4, wherein said protocol adapter converts the format of an invoke request and create a message context containing the invoke request.

6.   (Currently Amended) The ~~system~~ storage medium of claim 1, further comprising a plugin component to be used by said container driver to perform any data binding and unbinding.

7.   (Currently Amended) The ~~system~~ storage medium of claim 1, further comprising an invocation context for storing arbitrary context data useful in processing the web request, said invocation context available to at least one of said interceptor and said invocation handler.

8.   (Currently Amended) The ~~system~~ storage medium of claim 1, wherein said invocation handler manages security policies, transaction management, and target object life cycle for the request.

9.   (Currently Amended) The ~~system~~ storage medium of claim 1, further comprising a web service container for hosting said container driver, said interceptor, and said invocation handler.

10.   (Currently Amended) The ~~system~~ <u>storage medium</u> of claim 1, further comprising a target object to which said invocation handler can delegate processing the invoke request.

11.   (Currently Amended) A method for <u>use in </u>providing access to web services, comprising:
~~receiving at a container manager an invoke request f from a client to access web services;~~
~~formatting message context for the invoke request to be used with web services;~~
~~binding the message context;~~
~~processing the request using an invocation handler and generating response data;~~
~~unbinding the message context containing the response data; and,~~
~~reformatting the message context for responding to the invoke request~~
<u>receiving an initial message context for an invoke request for a web service, the initial message context including a plurality of components each of which includes corresponding content; and</u>
<u>modifying the content of one or more of the components of the initial message context to produce modified message context for the web service, the modified message context including the same plurality of components as the initial message context but with the content of one or more components differing from the initial message context.</u>

12.   (Currently Amended) The method of claim 11 wherein ~~the~~ <u>a</u> client utilizes JAX-RPC to invoke the web ~~services~~ <u>service</u>.

13.   (Original) The method of claim 11 wherein a container driver is used to perform any data binding and unbinding required to process the invoke request.

14.   (Currently Amended) The method of claim 11, further comprising intercepting an invoke request from a web services client using a protocol adapter and generating <u>the initial</u> message context for the invoke request ~~to be sent to the container manager~~.

- 4 -

15. (Currently Amended) The method of claim 11, wherein ~~said step of formatting message context comprises~~ the receiving and modifying steps are preformed using an interceptor ~~to format the message context~~.

16. (Currently Amended) The method of claim 11, ~~wherein said step of binding the message context comprises using a codec selected from the group consisting of Java Binding codecs, SOAP codecs, XML codecs, and custom codecs~~ further comprising providing the modified message context to an invocation handler that passes parameters from the modified message context to a target of the request, processes values returned from the target, and passes the values to a container driver, such that the container driver can formulate a response to the invoke request.

17. (Original) The method of claim 11, further comprising storing arbitrary context data for use in processing the invoke request.

18. (Original) The method of claim 11, further comprising managing life cycle, transaction, and security information for the processing of the invoke request.

19. (Original) The method of claim 11, further comprising delegating the processing of the invoke request to a target object.

20. (Currently Amended) A computer readable medium, including instructions stored thereon which when executed by the computer cause the computer to perform the steps of:

~~receiving at a container manager an invoke request from a client to access web services;~~

~~formatting message context for the invoke request to be used with web services;~~

~~binding the message context;~~

~~processing the request using an invocation handler and generating response data;~~

- 5 -

~~unbinding the message context containing the response data; and,~~

~~reformatting the message context for responding to the invoke request~~

accepting, at a container driver, an invoke request for a web service from a client;

receiving, at an interceptor, initial message context for the invoke request for the web service from the container driver, the initial message context including a plurality of components each of which includes corresponding content;

modifying, at the interceptor, the content of one or more of the components of the initial message context to produce modified message context for the web service, the modified message context including the same plurality of components as the initial message context but with the content of one or more components differing from the initial message context;

receiving, at an invocation handler, the modified message context from the container driver;

passing, from the invocation handler to a target of the request, parameters from the modified message context;

processing, at the invocation handler, values returned from the target;   passing the values from the invocation handler to the container driver; and

formulating, at the container driver, a response to the invoke request.

21.   (New) The storage medium of claim 1, wherein the initial message context and the modified message context each include a request message component, a response message component, a transport information component and invocation context component, with a difference between the initial message context and the modified message context being the content of one or more of these components.

22.   (New) The storage medium of claim 21, wherein the content of the invocation context component includes at one of the following, which differs between the initial message context and the modified message context:

- 6 -

a conversion ID;

a message sequence number; and

a security token.

23.   (New)   The storage medium of claim 21, wherein the interceptor reads and writes
information on the invocation context component.